

a¹ lower limit of an allowable value of a track pitch and the lower limit of linear velocity, so that data can be recorded in the first part for the maximum regeneration time. An existing CD reproducing apparatus can reproduce the audio data recorded in the first part. Compressed and encrypted audio data is recorded in a second part at a single density or at a double density. The single density represents a recording density equivalent to that of an existing CD and the double density represents a density two times larger than the single density. Audio data recorded in the second part is charged when reproduced to protect copyrights. The format of the data recorded in the second part uses the format of a CD-ROM.--

IN THE CLAIMS

Please amend claims 1-84 by rewriting same to read as follows:

--1. (Amended) A data-recording medium in which data is recorded by dividing a recording area into at least first and second recording areas, wherein

a² first data to be recorded in said first recording area are unencrypted data and at least a part of second data to be recorded in said second recording area are encrypted data; and compression rates of said first data and said second data are different.

--2. (Amended) The data-recording medium according to claim 1, wherein said first data and said second data have different contents.

--3. (Amended) The data-recording medium according to claim 1, wherein said first data and said second data have identical contents.

--4. (Amended) The data-recording medium according to claim 1, wherein said first data are uncompressed data and said second data are compressed data.

A²
--5. (Amended) The data-recording medium according to claim 1, wherein a data management area in which management information showing whether said second data are recorded is formed on said recording medium.

--6. (Amended) The data-recording medium according to claim 1, wherein a data management area in which management information showing whether said first data and second data are identical is recorded is formed on said recording medium.

--7. (Amended) The data-recording medium according to claim 1, wherein data management information showing positions of said first data and said second data is recorded in said recording medium.

--8. (Amended) The data-recording medium according to claim 1, wherein said first data and said second data have different data formats.

--9. (Amended) The data-recording medium according to claim 1, wherein said recording medium is a discoid recording medium.

--10. (Amended) The data-recording medium according to claim 9, wherein said first recording area is formed at an inner-track side and said second recording area is formed at an outer-track side.

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--11. (Amended) The data-recording medium according to claim 9, wherein said data recorded in said first recording area and said data recorded in said second recording area have different compression rates based on a track pitch, a linear velocity, and a data format.

--12. (Amended) The data-recording medium according to claim 1, wherein said second data recorded in said second recording area are data to be charged when reproduced and data for charging are recorded in a data management area.

--13. (Amended) A discoid recording medium having a disk dimension, a track pitch, and a minimum pit length respectively specified in accordance with a standard, said

recording medium comprising:

a first recording area allowing data for a specified maximum regeneration time to be recorded by recording first data in accordance with a lower limit of an allowable width of said track pitch and a lower limit of an allowable width of said minimum pit length; and

a second recording area allowing second data for said maximum regeneration time to be recorded, wherein

said first data and said second data are discontinuously recorded.

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--14. (Amended) The discoid recording medium according to claim 13, wherein said first data and said second data have different contents.

--15. (Amended) The discoid recording medium according to claim 13, wherein said first data and said second data have identical contents.

--16. (Amended) The discoid recording medium according to claim 13, wherein said first data are uncompressed data and said second data are compressed data.

--17. (Amended) The discoid recording medium according to claim 13, wherein a data management area in which management information showing whether said second data are recorded is recorded in said recording medium.

--18. (Amended) The discoid recording medium according to claim 13, wherein management information showing whether said first data and said second data are identical is recorded in said recording medium.

--19. (Amended) The discoid recording medium according to claim 13, wherein a data management area in which management information showing positions of said first and said second recording areas is recorded in said recording medium.

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--20. (Amended) The discoid recording medium according to claim 13, wherein said first data and said second data have different data formats.

--21. (Amended) The discoid recording medium according to claim 13, wherein said second data recorded in said second recording area are data to be charged when reproduced and data for charging are recorded in a data management area.

--22. (Amended) The discoid recording medium according to claim 13, wherein said second data are encrypted data.

--23. (Amended) The discoid recording medium according to claim 13, wherein said first recording area is formed at an inner-track side and said second recording area is formed at an outer-track side.

--24. (Amended) The discoid recording medium according to claim 23, wherein

a first lead-in area formed at said inner-track side of said first recording area and a first lead-out area formed at said outer-track side of said first recording area are included; and

a second lead-in area formed at said inner-track side of said second recording area and a second lead-out area formed at said outer-track side of said second recording area are included.

a² --25. (Amended) The discoid recording medium according to claim 13, wherein said standard is a CD standard, said lower limit of said allowable width of said track pitch is equal to 1.5 μm , and a linear velocity CLV is equal to 1.2 m/sec.

--26. (Amended) The discoid recording medium according to claim 13, wherein said standard is a CD standard and said specified maximum regeneration time is equal to 74.7 min.

--27. (Amended) A data recording method for recording data in a recording medium whose recording area is divided into at least first and second recording areas, comprising the step of:

recording first data which are unencrypted data in a first recording area and recording second data at least a part of which are encrypted in a second recording area, wherein

compression rates of said first data and said second data are different.

--28. (Amended) A data recording apparatus for recording data in a recording medium whose recording area is divided into at least first and second recording areas, comprising:

recording means for recording first data which are unencrypted data in said first recording area and recording second data at least a part of which are encrypted in said second recording area, wherein

compression rates of said first data and said second data are different.

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--29. (Amended) A data recording method for recording data in a recording medium having a disk dimension, a track pitch, and a minimum pit length respectively specified in accordance with a standard, comprising the steps of:

recording first data in accordance with a lower limit of an allowable width of said track pitch and a lower limit of an allowable width of said minimum pitch length for recording data for a specified maximum regeneration time in a first recording area; and

recording second data in a second recording area discontinuously from said first data.

--30. (Amended) A data recording apparatus for recording data in a recording medium having a disk dimension, a track

pitch, and a minimum pit length respectively specified in accordance with a standard, wherein

first data are recorded in accordance with a lower limit of an allowable width of said track pitch and a lower limit of an allowable width of said minimum pit length for recording data for a specified maximum regeneration time in a first recording area; and

second data are recorded in a second recording area discontinuously from said first data.

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--31. (Amended) A data reproducing method for reproducing data from a data-recording medium whose recording area is divided into at least first and second recording areas and in which first data to be recorded in said first recording area are unencrypted data, at least a part of second data to be recorded in said second recording area are encrypted data, compression rates of said first data and said second data are different, and management information for designating whether said encrypted second data are recorded is recorded, comprising the steps of:

reproducing data from said data-recording medium; and

determining in accordance with said reproduced management information whether said encrypted second data are recorded and decoding said encrypted second data when determining that said second data are recorded.

--32. (Amended) The data reproducing method according to

claim 31, wherein said encrypted second data are charged when said second data are decoded.

--33. (Amended) The data reproducing method according to claim 31, wherein said method directly outputs said encrypted second data when determining that said second data are recorded.

--34. (Amended) The data reproducing method according to claim 33, wherein information about charging is output simultaneously when said second data are directly output.

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--35. (Amended) A data reproducing apparatus for reproducing data from a data-recording medium whose recording area is divided into at least first and second recording areas and in which first data to be recorded in said first recording area are unencrypted data and at least a part of second data to be recorded in said second recording area are encrypted data, compression rates of said first data and said second data are different, and management information for designating whether encrypted second data are recorded, comprising:

reproducing means for reproducing said data from said data-recording medium;

first signal processing means for processing said first data; and

second signal processing means for processing said second data, wherein

it is determined in accordance with said management information whether said encrypted second data are recorded and said second data are decoded by said second signal processing means when it is determined that said second data are recorded.

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--36. (Amended) A data reproducing method for reproducing data from a discoid recording medium having a disk dimension, a track pitch, and a minimum pit length respectively specified in accordance with a standard, said medium being constituted of a first recording area allowing data for a specified maximum regeneration time to be recorded by recording first data in accordance with a lower limit of an allowable width of said track pitch and a lower limit of an allowable width of said minimum pit length and a second recording area allowing second data to be recorded, and in which said first data and said second data are discontinuously recorded and management information for designating whether said second data are recorded is recorded, comprising the steps of:

reproducing said data from said discoid recording medium;
and

determining whether said encrypted second data are recorded in accordance with said reproduced management information and decoding said encrypted second data when it is determined that said second data are recorded.

--37. (Amended) The data reproducing method according to

claim 36, wherein said encrypted second data are charged when decoded.

--38. (Amended) The data reproducing method according to claim 36, wherein said method further directly outputs said encrypted second data when it is determined that said second data are recorded.

--39. (Amended) The data reproducing method according to claim 38, wherein said information about charging is output simultaneously when said second data are directly output.

a² --40. (Amended) A data reproducing apparatus for reproducing data from a discoid recording medium having a disk dimension, a track pitch, and a minimum pit length respectively specified in accordance with a standard, which includes a first recording area allowing data for a specified maximum regeneration time to be recorded by recording first data in accordance with a lower limit of an allowable width of said track pitch and a lower limit of an allowable width of said minimum pit length and a second recording area allowing second data to be recorded, and in which said first data and said second data are discontinuously recorded and management information for designating whether said second data are recorded, comprising:

reproducing means for reproducing said data from said recording medium;

first signal processing means for processing said first data;

second signal processing means for processing said second data, wherein

it is determined in accordance with said management information whether said encrypted second data are recorded and said encrypted second data are decoded when it is determined that said second data are recorded.

--41. (Amended) A discoid recording medium, comprising:

a first lead-in area;

a first recording area formed at an outer-track side of said first lead-in area in which uncompressed data are recorded;

a² a first lead-out area formed at an outer-track side of said first recording area;

a second lead-in area formed at an outer-track side of said first lead-out area;

a second recording area formed at the outer-track side of said second lead-in area in which compressed data are recorded; and

a second lead-out area formed at an outer-track side of said second recording area.

--42. (Amended) The discoid recording medium according to claim 41, wherein said uncompressed data are recorded in said first recording area in accordance with a CD format at a track

pitch of 1.5 μm and a linear velocity of 1.2 m/sec.

--43. (Amended) The discoid recording medium according to claim 42, wherein said compressed data are recorded in said second recording area in accordance with a CD-ROM format at a track pitch of 1.1 μm and a linear velocity of 0.87 m/sec.

--44. (Amended) The discoid recording medium according to claim 43, wherein a recording density of said second recording area is at least two times larger than a recording density of said first recording area.

a² --45. (Amended) The discoid recording medium according to claim 41, wherein collateral information including identification information showing whether said second recording area is present is recorded in said first lead-in area.

--46. (Amended) The discoid recording medium according to claim 45, wherein said information showing a recording area in which data having identical contents as said uncompressed data recorded in said first recording area are included in said collateral information.

--47. (Amended) The discoid recording medium according to claim 45, wherein information showing whether said uncompressed data recorded in said first recording area are

encrypted and a type of encryption is included in said collateral information.

--48. (Amended) The discoid recording medium according to claim 45, wherein a start address and an end address of said first recording area are included in said collateral information.

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--49. (Amended) The discoid recording medium according to claim 45, wherein information showing whether said uncompressed data recorded in said second recording area are encrypted and a type of encryption is included in said collateral information.

--50. (Amended) The discoid recording medium according to claim 48, wherein said start and end addresses of said second recording area are included in said collateral information.

--51. (Amended) The discoid recording medium according to claim 45, wherein charging information showing whether said data recorded in at least said first and said second recording areas are data to be charged is recorded in said first lead-in area.

--52. (Amended) The discoid recording medium according to claim 41, wherein a mirror area is further formed between said first lead-out area and said second lead-in area of said

recording medium.

--53. (Amended) A discoid-recording-medium reproducing apparatus comprising:

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a head for reading data and collateral information from a discoid recording medium that is provided with at least a first lead-in area; a first recording area that is formed at an outer-track side of said first lead-in area and in which uncompressed data are recorded; a first lead-out area formed at said outer-track side of said first recording area; a second lead-in area formed at said outer-track side of said first lead-out area; a second recording area that is formed at said outer-track side of said second lead-in area and in which compressed data are recorded; and a second lead-out area formed at said outer-track side of said second recording area in which identification information showing whether said second recording area is present and collateral information including at least start and end addresses of said first and said second recording areas are recorded;

a first regeneration part to which an output signal is supplied from said head and that reproduces said uncompressed data read from said first recording area on said recording medium;

a second regeneration part to which said output signal is supplied from said head and that reproduces said compressed data read from said second recording area on said recording medium; and

a control part to which said output signal is supplied from said head and that changes said first regeneration part and said second regeneration part in accordance with said collateral information.

--54. (Amended) The discoid-recording-medium reproducing apparatus according to claim 53, wherein said control part controls movement of said head in accordance with said collateral information read from said recording medium.

a² --55. (Amended) The discoid-recording-medium reproducing apparatus according to claim 53, wherein said discoid recording medium is further set to said apparatus; said apparatus is provided with a rotating part for rotating said set discoid recording medium; and said rotating part is controlled by said control part so as to change linear velocities when said head is moved from either of said first and said second recording areas of said recording medium to an other recording area of said recording medium.

--56. (Amended) The discoid-recording-medium reproducing apparatus according to claim 55, wherein a mirror area is further formed between said first lead-out area and said second lead-in area of said recording medium and said control part controls said rotating part so as to change said linear velocities while said head passes through said mirror part.

--57. (Amended) A discoid-recording-medium reproducing method, comprising the steps of:

a² reading data and collateral information by a head from a discoid recording medium that is provided with at least a first lead-in area, wherein a first recording area is formed at an outer-track side of said first lead-in area in which uncompressed data are recorded; a first lead-out area is formed at said outer-track side of said first recording area; a second lead-in area is formed at said outer-track side of said first lead-out area; a second recording area is formed at said outer-track side of said second lead-in area in which compressed data are recorded and a second lead-out area is formed at said outer-track side of said second recording area in which identification information showing whether said second recording area is present and collateral information including at least start and end addresses of said first and second recording areas are recorded; and

changing a first regeneration part to which an output signal is supplied from said head and that reproduces said uncompressed data read from said first recording area on said recording medium and a second regeneration part to which said output signal is supplied from said head and that reproduces said compressed data read from said second recording area on said recording medium in accordance with said collateral information read by said head.

--58. (Amended) The discoid-recording-medium reproducing

method according to claim 57, wherein said method controls a rotational speed of said discoid recording medium to change linear velocities when said head is moved from either of said first and said second recording areas to an other recording area.

--59. (Amended) The discoid-recording-medium reproducing method according to claim 58, wherein said recording medium has a mirror area between said first lead-out area and said second lead-in area and said rotational speed of said discoid recording medium is changed when said head passes through said mirror area.

a² --60. (Amended) The discoid-recording-medium reproducing method according to claim 57, wherein said collateral information includes charging information showing whether said data recorded in said recording medium are data to be charged and charging is performed in accordance with said charging information when reproducing said compressed data recorded in said second recording area.

--61. (Amended) The discoid-recording-medium reproducing method according to claim 60, wherein said method determines whether said compressed data to be reproduced have contents identical to said uncompressed data recorded in said first recording area and reproduces said compressed data to be reproduced without being charged when said determination

result shows that said compressed data have said identical contents.

--62. The discoid-recording-medium reproducing method according to claim 61, wherein when it is determined that said compressed data to be reproduced do not have said identical contents as said uncompressed data recorded in said first recording area said compressed data is charged and then reproduced.

a² --63. (Amended) The discoid-recording-medium reproducing method according to claim 62, wherein said collateral information further includes said information showing an area in which data having said identical contents as said uncompressed data recorded in said first recording area and said method determines in accordance with said collateral information whether said compressed data to be reproduced has said identical contents as said uncompressed data recorded in said first recording area.

--64. (Amended) A discoid recording medium, comprising:
a first recording area in which data having a first compression rate in which at least first copyright management information and second copyright management information are embedded are recorded; and

a second recording area in which at least said second copyright information is embedded at an outer-track side of

said first recording area and data having a second compression rate are recorded.

--65. (Amended) The discoid recording medium according to claim 64, wherein said first copyright management information is embedded in said first-compression-rate data so that said first copyright management information disappears by applying signal processing to said first-compression-rate data.

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--66. (Amended) The discoid recording medium according to claim 65, wherein said second copyright management information is embedded in said first-compression-rate data and second-compression-rate data so that said second copyright management information remains when applying signal processing to said second-compression-rate data.

--67. (Amended) The discoid recording medium according to claim 64, wherein said second copyright management information is embedded in said first-compression-rate data and said first copyright management information is embedded in said data.

--68. (Amended) The discoid recording medium according to claim 64, wherein said first compression rate is equal to zero.

--69. (Amended) The discoid recording medium according to claim 68, wherein said first-compression-rate data are

recorded in said first recording area in accordance with a CD format at a track pitch of 1.5 μm and a linear velocity of 1.2 m/sec.

--70. (Amended) The discoid recording medium according to claim 69, wherein said second-compression-rate data are recorded in said second recording area in accordance with a CD-ROM format at a track pitch of 1.1 μm and a linear velocity of 0.87 m/sec.

a² --71. (Amended) The discoid recording medium according to claim 70, wherein a recording density of said second recording area is at least two times larger than a recording density of said first recording area.

--72. (Amended) The discoid recording medium according to claim 64, further comprising: a first lead-in area formed at an inner-track side of said first recording area; a first lead-out area formed at said inner-track side of said second recording area outside of said first recording area; a second lead-in area formed at said inner-track side of said recording area outside of said first lead-out area; and a second lead-out area formed at an outer-track side of said recording area.

--73. (Amended) The discoid recording medium according to claim 72, wherein collateral information including identification information showing whether said second

recording area is present is recorded in said first lead-in area.

--74. (Amended) The discoid recording medium according to claim 73, wherein said collateral information includes information showing a recording area in which data having contents identical to said first-compression-rate data recorded in said first recording area.

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--75. (Amended) The discoid recording medium according to claim 73, wherein said collateral information includes information showing whether said uncompressed data recorded in said first recording area are encrypted and information showing a type of encryption.

--76. (Amended) The discoid recording medium according to claim 75, wherein said collateral information includes a start address and an end address of said first recording area.

--77. (Amended) The discoid recording medium according to claim 76, wherein said collateral information includes information showing said uncompressed data recorded in said second recording area are encrypted and information showing said type of encryption.

--78. (Amended) The discoid recording medium according to claim 77, wherein said collateral information includes a start

address and an end address of said second recording area.

--79. (Amended) The discoid recording medium according to claim 73, wherein charging information showing whether said data recorded in at least said first and said second recording areas are data to be charged is recorded in said first lead-in area.

--80. (Amended) The discoid recording medium according to claim 72, wherein a mirror area is further formed between said first lead-out area and said second lead-in area of said recording medium.

a² --81. (Amended) A recording medium copy control method, comprising the steps of:

determining whether second copyright management information is detected from data read from a recording medium provided with a first recording area in which data having a first compression rate and in which first copyright management information and said second copyright management information are embedded are recorded and a second recording area in which data having a second compression rate different from said first compression rate are recorded;

determining whether said first copyright management information is detected when it is determined that said second copyright information is detected; and

copy-controlling said data read from said recording

medium in accordance with said first copyright management information when it is determined that said first copyright management information is detected.

--82. (Amended) The recording-medium copy control method according to claim 81, wherein a first generation copy is realized when it is determined that said second copyright management information is not detected.

a² --83. (Amended) The recording-medium copy control method according to claim 82, wherein copy control is performed in accordance with said second copyright management information when it is determined that said first copyright management information is not detected.

--84. (Amended) The recording-medium copy control method according to claim 83, wherein copying is inhibited in accordance with said second copyright management information when it is determined that said first copyright management information is not detected.--

REMARKS

Claims 1-84 remain in the application and have been amended hereby.

As will be noted from the Declaration, Applicants are citizens and residents of Japan and this application originated there.